REMARKS

Favorable reconsideration and allowance of this application are requested.

By way of the amendment instructions above, a title which is commensurate with the elected claims undergoing prosecution has been presented.

In addition, many of the originally filed claims have been amended so as to emphasize the novel and patentable features of this invention. New claims 44-47 have also been added which are believed commensurate with the prior election requirement. Claims 2 and 15 have been canceled. Thus, claims 1, 3-14, 16-24 and 44-47 remain pending in this application for which favorable reconsideration is requested.

All prior claims attracted a rejection either under 35 USC §102(b) as allegedly anticipated by, or under 35 USC §103(a) as allegedly rendered obvious by, USP 6,888,124 to Smith. Applicants suggest that the Smith '124 patent is inappropriate as a reference against the amended claims presented above.

In this regard, while it is true that Smith '124 discloses a coated wire element with which a fiber optic sensor having Bragg gratings is operatively associated, it is really at this juncture that any perceived similarities between the present invention and Smith '124 cease.

Specifically, the Smith '124 teaches those in the art that, in order to function as a suitable sensor to sense various conditions of the structure, it is the Bragg grating per se that needs to be designed in such a manner to suit such needs. Thus, in order to function as a temperature sensor, Smith '124 teach that "...the gratings 7 may be designed such that he reflected wavelength varies with temperature." (Col, 3, lines 10-13) Similarly, in order to function as a seismic sensor, it may again be formed of "...similar gratings that reflect varying wavelengths in response to vibrations." (Col. 3, lines 15-17)

In direct contrast, according to the present invention, a predetermined strain is imparted to the fiber optic condition sensor. Thus, the fiber optic condition sensor of the present invention exhibits a predetermined strain characteristic which is responsive to a selected condition of the composite structure to be sensed. The sensor therefore detects a change in this predetermined strain characteristic which is indicative of the condition of said composite structure.

The Smith '124 patent does not disclose or suggest imparting a predetermined strain to a fiber optic condition sensor so that a change in such predetermined strain characteristic is indicative of a condition of the composite structure to be detected.

Most certainly, the Smith '124 patent does not disclose or suggest the subject matter of, for example, claim 3 whereby the predetermined strain characteristic is imparted to the fiber optic condition sensor by virtue of different coefficients of thermal expansion of a polymeric coating. Nor does the Smith '124 patent disclose or suggest the subject matter of claim 44 whereby a magnetorestrictive material induces a strain characteristic on the fiber optic condition sensor in response to exposure to a magnetic field so as to provide a magnetic field strength sensor assembly.

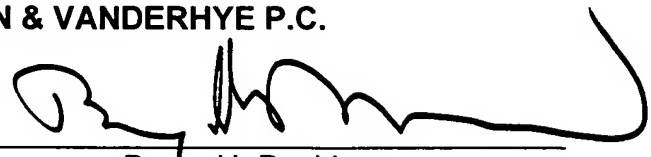
Every effort has been made to advance prosecution of this application to allowance. Therefore, in view of the amendments and remarks above, applicant suggests that all claims are in condition for allowance and Official Notice of the same is solicited.

Should any small matters remain outstanding, the Examiner is encouraged to telephone the Applicants' undersigned attorney so that the same may be resolved without the need for an additional written action and reply.

An early and favorable reply on the merits is awaited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

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